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February 3, 1994

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Mr. William Caton
Acting Secretary
Federal Communications Commission
Room 222
1919 M Street, NW
Washington, DC 20554

Re: Ex Parte Presentation GEN Docket No. 90-314
RM-7140, RM-7175, RM-7618

Dear Mr. Caton:

Pursuant to Section 1.1206 of the Commission's rules, you are hereby notified that Ron Cross, Director Regulatory Policy, Ihor Nakonecznyj, Senior Product Line Manager, and the undersigned, all of Northern Telecom, met with Commissioner James H. Quello and Brian F. Fontes of his staff as well as Byron Marchant and Ester Rosenthal of Commissioner Andrew C. Barrett's staff on February 1, 1994, and discussed issues relating to broadband PCS in the referenced proceeding.

The discussions are summarized in the attachments to this notification, two copies of which are being provided. The attachments were also provided to the FCC staff.

Sincerely,

Raymond L. Strassburger
Director, Government Relations - Telecommunications Policy

RLS/gj
Attachments

cc: Commissioner James H. Quello
Brian F. Fontes
Byron Marchant
Ester Rosenthal

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Original

February 1, 1994

Northern Telecom - Licensed PCS Highlights

1. Base Station maximum power should be at least 1600 Watts EIRP (1000 Watts ERP):
 - High gain antennas require higher power output to **balance link budgets** thereby efficiently utilizing radiated power for 0.250 Watt mobiles;
 - Higher power required for **economical coverage of rural and less dense population areas** as well as economical service start-up creating a more competitive PCS service offering;
 - Higher power base stations will significantly reduce the total number of antennas thereby reducing cost of site acquisition and environmental impact;
 - Higher power results in **no increase** (sometimes decrease) in **interference** to existing microwave systems;
 - Base stations in controlled environment which **controls risks to health**;
 - Increased **flexibility in base station site location** leads to greater economic benefit and rapid deployment for operators with resultant enhanced public service.
2. The U.S. PCS industry is aggressively putting PCS standards in place requiring no further intervention by the FCC **at this time**:
 - NT unequivocally supports full standards formulation and is actively and aggressively contributing to standards formulation in industry forums;
 - Vendors and operators are working towards **basic standards agreement in 1994**;
 - Mandatory standards could delay rather than expedite standards formulation;
 - Requirement of standards before deployment will **'stifle the introduction of important new technology'**.
3. Interim type approval requirements of handheld units should be satisfied by either SAR or extension of the low-power exclusion formula:
 - NT places the health and safety of the public as the highest priority;
 - IEEE has written to the FCC indicating that the low-power rule can be conservatively extrapolated into the 2 GHz band without creating adverse health risk;
 - Docket 93-62 will exhaustively treat and define requirements for handheld sets;
 - Lack of SAR testing facilities will bottleneck PCS deployment.



Northern Telecom - Unlicensed

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Docket 90-314 Second Report and Order

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The WINForum Etiquette was a hard won industry consensus which was extensively discussed over many meetings to ensure consistency and technical integrity.

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Northern Telecom is deeply concerned about the elements of the WINForum Etiquette that were left out of the FCC Part 15 rules.

Specifically, Northern Telecom is concerned about the omission of the provision for multi-carrier devices. This provision was intended to permit an access mechanism for more than one carrier in devices intended to communicate with both voice and data devices such as PDA's. ***This capability can be thought of as providing sufficient access ramps to the information highway.***

In certain high density applications, the traffic will exceed the capacity of a single carrier (access ramp) and this access mechanism is essential to permit multiple access ramps and enable the innovation and competition that is the key element in the Commission's vision for the unlicensed PCS band.

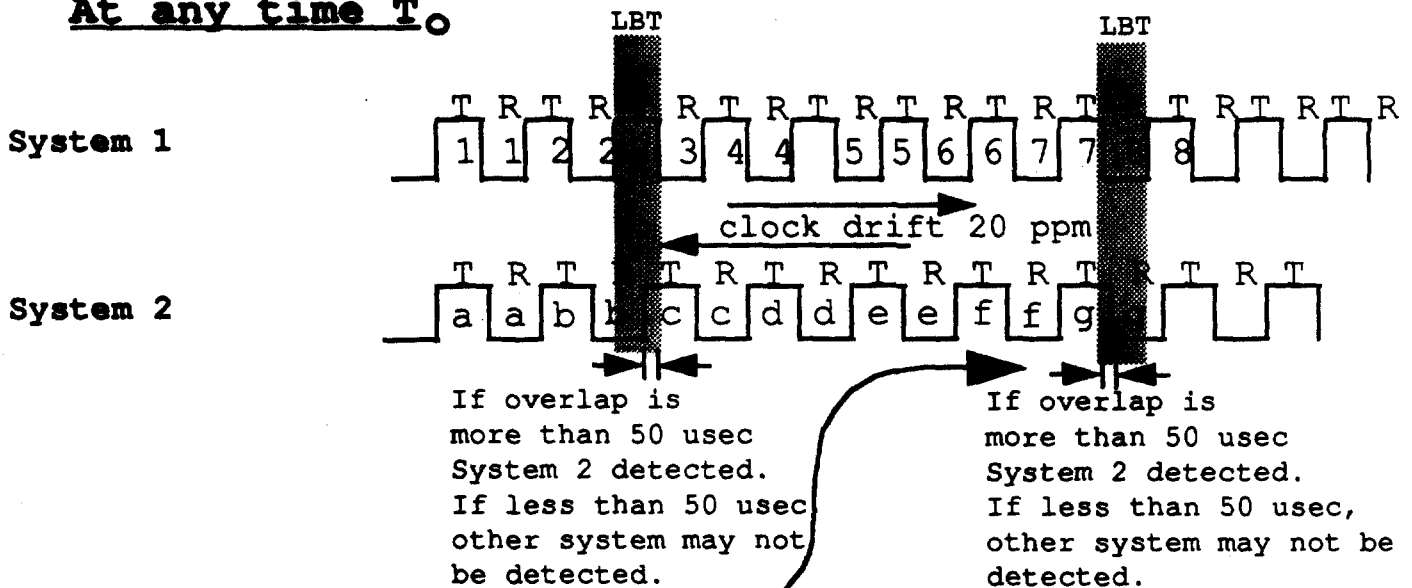
The multi-carrier device access mechanism in the WINForum Etiquette was designed to insure no decrease in protection from interference (see attachment).

Northern Telecom urges the Commission to restore the provisions of the WINForum Etiquette regarding multi-carrier devices. The following addition to the FCC Part 15 rules is required:

15.321 (c) (11) Before initiating transmission, devices which are prevented from monitoring during their intended transmit interval due to receiver blocking from the transmissions of a co-located (within one meter) transmitter of the same system, may monitor the portions of the time and spectrum windows in which they intend to receive over a period of at least 10 milliseconds to determine if the access criteria are met so long as the monitored spectrum is within the 1.25 MHz. frequency channel(s) already occupied by that device or by a co-located (within one meter) co-operating group of devices. The receive monitoring interval must total at least 45% of the 10 millisecond monitoring interval.

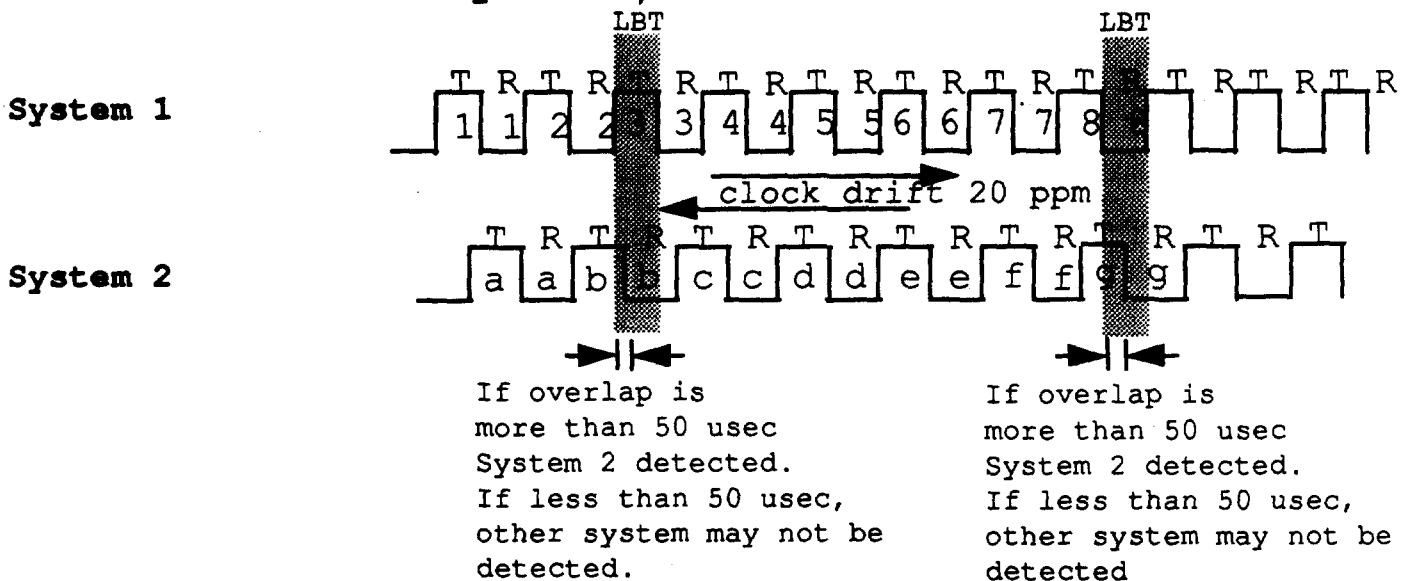
LBT Example

At any time T_0



- ★ --> systems start up at different time instants
- ★ --> the system clocks are not in synchronism
- ★ --> Tx times will drift relative to each other

Some other time T_1



Thus the same level of protection is provided whether isochronous systems LBT during the receive or transmit period.